February 1

~~JANUARY 1~~, 1991-MONTANA WATER SUPPLY OUTLOOK REPORT

Snow accumulations during January were below average throughout most areas of the state. Snowpacks remain above to well above average in northwest Montana and in the headwater areas of the Sun, Teton, Marias, Milk and St. Mary River Basins. Snowpack conditions continued to deteriorate in the southwestern part of the state and remain well below average. Snowpacks range from below to near average elsewhere. Mountain precipitation for the month varied from near to a little above average in the northwest and north-central areas of the state to well below average in southwest Montana. West of the Divide, streamflows are expected to range from above to well above average in northwest Montana to below or well below average in the Upper Clark Fork River Basin. East of the Divide, streamflow forecasts range from well below average on the Jefferson River Drainage to above to well above average on the north-central Montana basins. Surface Water Supply Indexes (SWSI) vary from +3.4 on the Tobacco River Drainage to -3.2 on the Beaverhead Basin. Many of the basins have an index in the -1.0 to -2.0 range.

SNOWPACK

January snowfall was generally below average throughout most of the mountainous areas. In comparison to average, most snowpack conditions have deteriorated somewhat from those reported a month ago. Some improvement, however, was noted in the Bear Paw and Snowy Mountain Ranges in central and north-central Montana. West of the Divide, snowpack conditions remain above to well above average in the Kootenai and Flathead River Basins, near to a little above average in the Lower Clark Fork, Bitterroot and Blackfoot River Drainages and below average on the Upper Clark Fork River and its tributaries. Snowpacks, east of the Divide, currently range from well above average in the headwaters of the St. Mary, Milk, Sun, Teton and Marias River Basins to well below average in the Red Rock, Ruby and Beaverhead Basins of southwest Montana. Snowpacks in the Big Hole, Madison, Gallatin, Shields and Upper Yellowstone River Drainages are below average. Near to a little below average snowpacks are found in the Smith, Judith and Musselshell River Basins. The Lower Yellowstone tributaries in Wyoming report below to a little below average snowpack conditions.

PRECIPITATION

MOUNTAIN AREAS - Mountain precipitation during January ranged from near to a little above average in the northwestern, north-central and central parts of the state to well below average in southwest Montana. The Kootenai, Flathead, St. Mary, Milk, Marias, Teton, Sun, Smith, Judith and Musselshell River Basins all reported near to a little above average mountain precipitation during the month. In contrast, well below average January precipitation was recorded in the mountainous areas of the Bitterroot, Jefferson, Madison, Gallatin and Upper Yellowstone River Basins. The Clark Fork and Lower Yellowstone tributaries reported below average amounts of mountain precipitation. Cumulative mountain precipitation amounts for the water year which began October 1, 1990, remain well above average in the northwest and north-central parts of the state, near to a little above average in western, central and south-central Montana and below average in southwest Montana.

VALLEY AREAS - January was another dry month for most of Montana's valley areas. All reporting valley stations west of the Divide measured below average amounts. Precipitation totals were much below average throughout nearly all of the Kootenai, Clark Fork and Bitterroot Basins, with the vast majority of the low elevation stations receiving only 20 to 50 percent of average moisture.

East of the Divide, moisture deficits continued to mount in the southwest, where much below average precipitation fell for the third month in a row. Nearly all the valley stations in the Jefferson and Madison Basins reported monthly totals of only 5 to 30 percent of average. Much below average precipitation also fell throughout most of the north-central and northeast Montana valleys with the hardest hit areas being in the extreme northeast corner. However, one area receiving above average valley precipitation was found in northern Liberty County near the Canadian Border. Above average precipitation also fell across isolated portions of central and south-central Montana. The largest amounts were observed near the Little Belt and Crazy Mountains. Another area of near to above average precipitation for January occurred in the southeast, which has also been experiencing extremely dry conditions since September. Above average amounts were confined to a narrow arc stretching from near Colstrip to Miles City and Ismay then southeast through Ekalaka, Ridgeway and Knobs. A small area of much above average precipitation fell within this arc in southeast Fallon and northeast Carter Counties.

RESERVOIRS

West of the Divide, near to above average storage levels are reported in most reservoirs except Painted Rocks Lake and the combined storage of the eight Mission Valley Reservoirs where storage levels are well below average. East of the Divide, irrigation storage is below to well below average in Lima, Clark Canyon and Ruby Reservoirs in southwest Montana. Below average storage is also reported in Smith River, Bair, Martinsdale and Deadman's Basin Reservoirs in the central part of the state and in Mystic Lake near Red Lodge. Most other irrigation reservoir report near to above average storage. Storage in the larger multipurpose reservoirs is generally near or above average except in Fort Peck Lake which reports about 70 percent of average storage.

STREAMFLOW

Streamflow forecasts have been reduced on many basins by about 5 to 20 percent from the January 1 projections as a result of below to well below average precipitation over the basins during January. West of the Divide, spring and summer flows are now expected to range from about 120 to 140 percent of average on the Kootenai and Flathead River Drainages, 65 to 75 percent of average on the Upper Clark Fork River, 90 to 105 percent of average on the Blackfoot River and 80 to 90 percent of average on the Bitterroot and upper reaches of the Lower Clark Fork River Basins. Flows on the Clark Fork River below Saint Regis are forecast to be 110 to 115 percent of average.

East of the Divide - Streamflows are forecast to be about 125 to 135 percent of average on the Sun, Teton and Marias River Basins and 110 to 120 percent of average on the St. Mary and Milk River Drainages. Elsewhere, spring and summer flows are expected be below to well below average with southwest Montana having the lowest forecasts. Streamflow projections range from about 50 to 70 percent of average on the Jefferson River Drainage to 75 to 80 percent of average on the Madison, Gallatin, Missouri Main Stem and its tributaries and on the Upper and Lower Yellowstone River Basins. The exceptions are the Missouri at Toston which is forecast at about 70 percent of average and Red Lodge Creek below Cooney Reservoir which is forecast at about 90 percent of average.

SOIL MOISTURE

In general, mountain soil moisture conditions are above average in northwest and north-central Montana, near to a little above average along the western edge of the state and below average in the southwestern and central areas. Basins in south-central Montana show near to a little below average soil moisture.

SURFACE WATER SUPPLY INDEX

The Surface Water Supply Index (SWSI) is a measure of available surface water supplies during the spring and summer months. The index ranges from -4.0 to +4.0. A SWSI of -4.0 represents an extremely dry situation, 0 is near a normal situation and +4.0 represents an extremely wet situation. The SWSI provides a scale to evaluate various levels of wetness or dryness and water supply conditions across the state. The SWSI takes into account snowpack, mountain precipitation, soil moisture and available reservoir storage.

SWSI Scale

SWSI	DESIGNATION
+3.0 to +4.0	Extremely wet
+2.0 to +3.0	Moderately wet
+1.0 to +2.0	Slightly wet
-1.0 to +1.0	Near average
-1.0 to -2.0	Slightly dry
-2.0 to -3.0	Moderately dry
-3.0 to -4.0	Extremely dry

SWSI's are currently available on the following basins. This list will be expanded as SWSI's for other basins are developed

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SWSI as of February 1, 1991 for the remainder of the 1991 irrigation season.

SWSI	BASIN
+3.4	Tobacco River
-0.7	Clark Fork above Blackfoot River
+1.9	Blackfoot River
+0.8	Clark Fork River above Missoula
-0.3	Bitterroot River
+0.5	Clark Fork River below Bitterroot River
-3.2	Beaverhead River
-2.5	Ruby River
-2.0	Big Hole River
-1.2	Boulder River (Jefferson)
-2.2	Jefferson River
-1.6	Madison River
-0.8	Gallatin River
-1.7	Missouri River above Canyon Ferry
-0.5	Smith River
+3.6	Sun River
+3.5	Marias River
-0.9	Musselshell River
+3.1	Milk River
-1.8	Yellowstone River above Livingston
-1.2	Shields River
-1.4	Boulder River (Yellowstone)
-0.9	Stillwater River (Yellowstone)
-1.3	Clarks Fork River
-1.1	Rock-Red Lodge Creek
-1.5	Yellowstone River above Bighorn River
-0.9	Little Bighorn River
-0.9	Tongue River

KOOTENAI RIVER BASIN in Montana

January mountain precipitation was near average for the drainage but varied from below average in the northwestern and southern parts of the basin to above average in the northeastern part. Valley precipitation was generally well below average. Snowpack conditions remain above to well above average ranging from about 110 percent of average on the Yaak River Drainage to about 150 percent of average on the Tobacco River and East Kootenay River Drainage in British Columbia. Soils under the snowpack are wetter than normal as a result of the heavy fall and early winter precipitation. Storage in Lake Koocanusa is about 90 percent of average. Spring and summer streamflows are now forecast to be above to well above average in the 125 to 140 percent of average range except the Yaak River which is forecast to be about 115 percent of average. The Surface Water Supply Index (SWSI) for the Tobacco River is +3.4.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
		<---DRIER---	FUTURE			--WETTER--->		
		-----	CHANCE OF EXCEEDING *			-----		
TOBACCO nr Eureka	APR-JUL	166	181	192	142	205	220	135
	APR-SEP	180	198	210	141	220	240	149
KOOTENAI bl Libby Dam (1,2)	APR-JUL	6120	7000	7450	127	7830	8770	5885
	APR-SEP	7180	8210	8740	127	9180	10300	6903
FISHER nr Libby	APR-JUL	260	295	320	136	345	380	236
	APR-SEP	290	320	345	136	370	400	253
YAAK nr Troy	APR-JUL	480	530	560	113	590	640	495
	APR-SEP	505	550	585	113	620	665	518
KOOTENAI at Leonia (1,2)	APR-JUL	7630	8730	9300	127	9760	10900	7340
	APR-SEP	8780	10000	10700	127	11200	12600	8441

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
LAKE KOOCANUSA	5748.0	2192.0	2966.0	2484.0

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
EAST KOOTENAI in B.C.	18	129	134
KOOTENAI MAINTSTEM in MT	19	121	120
TOBACCO	5	126	147
FISHER	1	134	128
YAAK	9	126	109
KOOTENAI in MT	26	122	118
KOOTENAI ab Bonners Ferry	44	124	123

FLATHEAD RIVER BASIN

Precipitation amounts during January were generally near or a little above average in the mountainous areas and below to well below average in the valley areas. Mountain snowpacks remain above to well above average for this time of year. Snowpacks range from about 120 percent of average on the Swan River Drainage to about 150 percent of average on the North Fork Flathead River Basin. Soil profiles are wetter than normal as a result of the heavy precipitation in the early part of the season. Reservoir storage levels are near to above average except in the eight Mission Valley reservoirs where the combined storage is about 60 percent of average. Streamflows for the spring and summer period are expected to be above to well above average in the 130 to 140 percent of average range throughout the basin except on the Swan River near Bigfork which is forecast to be about 120 percent of average.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
NF FLATHEAD nr Columbia Falls	APR-JUL	2100	2210	2290	135	2370	2490	1701
	APR-SEP	2320	2450	2530	135	2610	2740	1880
MF FLATHEAD nr West Glacier	APR-JUL	1950	2110	2220	132	2330	2490	1680
	APR-SEP	2130	2300	2420	132	2540	2710	1836
SF FLATHEAD nr Columbia Fls (1,2)	APR-JUL	2260	2560	2700	128	2840	3140	2110
	APR-SEP	2420	2740	2880	128	3020	3340	2249
FLATHEAD at Columbia Falls (2)	APR-JUL	6590	7050	7370	131	7690	8150	5622
	APR-SEP	7180	7680	8020	131	8360	8860	6114
STILLWATER nr Whitefish	APR-JUL	215	235	250	139	265	285	180
	APR-SEP	240	260	275	138	290	310	199
WHITEFISH nr Kalispell	APR-JUL	121	133	141	140	149	161	101
	APR-SEP	138	150	158	139	166	178	114
SWAN nr Bigfork	APR-JUL	625	680	720	120	760	815	599
	APR-SEP	715	775	820	120	865	925	685
FLATHEAD nr Polson (1,2)	APR-JUL	7560	8410	8790	133	917010000		6586
	APR-SEP	8220	9130	9550	134	997010900		7150

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

STREAMFLOW FORECASTS

FORECAST POINT	PERIOD	FCST (1000 AF)	10% (1000 AF)	30% (1000 AF)	50% (1000 AF)	70% (1000 AF)	90% (1000 AF)	30YR AVG (1000 AF)
		<--DRIER--- FUTURE ---WETTER-->						
		<----- CHANCE OF EXCEEDING ----->						

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
CAMAS (4)	45.2	25.9	15.5	20.1
MISSION VALLEY (8)	100.0	22.6	48.4	36.8
HUNGRY HORSE	3451.0	2406.0	2590.0	2406.0
FLATHEAD LAKE	1791.0	1128.0	924.3	1133.0

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
NORTH FORK FLATHEAD	8	126	143
MIDDLE FORK FLATHEAD	8	121	141
SOUTH FORK FLATHEAD	9	132	135
STILLWATER-WHITEFISH	2	149	140
SWAN	10	128	130
MISSION VALLEY	5	123	124
LITTLE BITTERROOT-ASHLEY	5	143	128
JOCKO	7	137	126
FLATHEAD	38	126	133

UPPER CLARK FORK RIVER BASIN

Mountain precipitation over the basin was about 80 percent of average for January. Valley stations reported less at about half the average amount. For the water year which began on October 1, cumulative precipitation for the mountain areas remains a little above average. Basin snowpack conditions range from about 75 percent of average for most areas of the

Upper Clark Fork River above Rock Creek to about 110 percent of average on the Blackfoot River Drainage. Soil moisture conditions are near to above average in the Blackfoot River Basin and near to below average elsewhere. Streamflows for the spring and summer period are generally forecast to be below to well below average in the 65 to 75 percent of average range. The exception is the Blackfoot River where near average streamflows are expected. The Surface Water Supply Index (SWSI) is -0.7 for the Clark Fork River above the Blackfoot River, +1.9 for the Blackfoot River and +0.8 for the Clark Fork River above Missoula.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
		<---DRIER---	FUTURE				--WETTER--->	
		-----	CHANCE OF EXCEEDING *				-----	
MOULTON RES inflow (million gal.)	APR-JUN	76	130	166	71	200	255	233
	APR-JUL	79	139	180	70	220	280	257
WARM SPRINGS CK at Anaconda (2)	APR-JUL	14.0	21	26	68	31	38	38
	APR-SEP	19.0	27	32	68	38	46	47
LITTLE BLACKFOOT nr Garrison	APR-JUL	11.0	45	68	72	91	125	94
	APR-SEP	13.0	50	74	73	99	135	102
FLINT CK nr Southern Cross (2)	APR-JUL	4.2	7.7	10.0	66	12.3	15.8	15.2
	APR-SEP	4.7	9.0	11.9	66	14.8	19.1	18.0
FLINT CK bl Boulder Ck	APR-JUL	19.0	32	41	67	50	63	61
	APR-SEP	26	42	53	68	64	80	78
LOWER WILLOW CK RES inflow	APR-JUL	3.4	7.3	10.0	67	12.7	16.6	14.9
	APR-SEP	3.9	7.9	10.7	68	13.5	17.5	15.8
MF ROCK CK nr Philipsburg	APR-JUL	39	48	55	80	62	71	69
	APR-SEP	43	54	61	79	68	79	77
ROCK CK nr Clinton	APR-JUL	162	200	230	75	260	300	306
	APR-SEP	186	230	260	75	290	335	345
NEVADA CK nr Finn	APR-JUL	7.0	12.7	16.5	79	20	26	21
	APR-SEP	7.5	13.4	17.5	80	22	28	22
CLEARWATER nr Clearwater	APR-JUL	149	165	176	105	187	205	168
	APR-SEP	159	176	187	105	198	215	178
BLACKFOOT nr Bonner	APR-JUL	650	750	820	94	890	990	874
	APR-SEP	720	830	905	93	980	1090	969
CLARK FORK ab Milltown	APR-JUL	265	415	520	74	625	775	703
	APR-SEP	325	490	605	75	720	885	812
CLARK FORK ab Missoula	APR-JUL	960	1190	1340	85	1490	1720	1577
	APR-SEP	1100	1350	1520	85	1690	1940	1781

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
GEORGETOWN LAKE	31.0	29.2	26.5	27.2
LOWER WILLOW CREEK	4.9	1.6	3.5	1.5
NEVADA CREEK		NO REPORT		

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
CLARK FORK ab FLINT CREEK	20	89	75
FLINT CREEK	9	96	73
ROCK CREEK	1	103	94
CLARK FORK ab BLACKFOOT	30	93	78
BLACKFOOT	16	129	112
UPPER CLARK FORK	43	110	94

BITTERROOT RIVER BASIN

January precipitation amounts were well below average throughout the basin. The mountain stations reported about 70 percent of average amounts while the valley stations reported less than half the average amounts. Since October 1, cumulative mountain precipitation totals are near average. Mountain snowpacks are now near to a little below average ranging from about 85 to 100 percent of average. Mountain soil moisture conditions are generally near or a little below average. Storage in Lake Como is about 110 percent of average. Water supplies for the spring and summer period are forecast to be between 80 and 90 percent of average. The Surface Water Supply Index (SWSI) for the Bitterroot River is -0.3.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
		<---DRIER---		FUTURE		--WETTER--->		
		-----		CHANCE OF EXCEEDING *		-----		
WF BITTERROOT nr Conner (2)	APR-JUL	92	117	134	82	151	176	163
	APR-SEP	101	127	145	82	163	189	177
BITTERROOT nr Darby	APR-JUL	325	395	445	85	495	565	524
	APR-SEP	370	440	490	86	540	610	573
ROCK CK nr Darby (2)	APR-JUL	60	69	74	93	80	88	80
	APR-SEP	63	71	77	92	83	91	84
SKALKAHO CK nr Hamilton	APR-JUL	31	37	41	85	45	51	48
	APR-SEP	37	43	48	86	53	59	56
BURNT FORK CK nr Stevensville (2)	APR-JUL	17.0	22	25	83	28	33	30
	APR-SEP	21	26	30	83	34	39	36
BITTERROOT at Missoula	APR-JUL	930	1090	1190	87	1300	1450	1371
	APR-SEP	1030	1190	1300	87	1410	1570	1495

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(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
PAINTED ROCKS LAKE	31.7	1.1	----	15.2
COMO	34.9	12.4	13.5	11.4

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
WEST FORK BITTERROOT	5	110	85
EAST SIDE BITTERROOT	2	107	90
WEST SIDE BITTERROOT	6	109	100
BITTERROOT	13	109	94

LOWER CLARK FORK RIVER BASIN

Mountain precipitation was about 85 percent of average for January. Since October 1, cumulative mountain precipitation totals are about 120 percent of average. Snowpacks are about 75 percent of average on the Upper Clark Fork River, about 110 percent of average on the Blackfoot River and 95 percent of average on the Bitterroot River. The smaller tributaries on the Lower Clark Fork River report near to above average snowpacks. Storage in Noxon Rapids is near average. Streamflows for the spring and summer period are forecast to be 85 to 90 percent of average between Missoula and Saint Regis and 110 to 115 percent of average in the lower reaches. The smaller tributaries are generally forecast to be 110 to 125 percent of average.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE ---WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
CLARK FORK ab Missoula	APR-JUL	960	1190	1340	85	1490	1720	1577
	APR-SEP	1100	1350	1520	85	1690	1940	1781
CLARK FORK bl Missoula	APR-JUL	1940	2290	2530	86	2770	3120	2948
	APR-SEP	2180	2560	2820	86	3080	3460	3276
CLARK FORK at St. Regis (1)	APR-JUL	1870	2880	3370	87	3820	4870	3894
	APR-SEP	2080	3200	3740	86	4240	5410	4325
CLARK FORK nr Plains (1,2)	APR-JUL	9220	11300	12300	113	13200	15200	10850
	APR-SEP	10100	12400	13500	113	14600	16700	11930
THOMPSON nr Thompson Falls	APR-JUL	225	255	280	126	305	335	222
	APR-SEP	250	290	315	126	340	380	250
PROSPECT CK at Thompson Falls	APR-JUL	109	131	145	113	159	181	128
	APR-SEP	117	140	155	113	170	193	137
CLARK FK at Whitehorse Rpds (1,2)	APR-JUL	9960	12200	13400	110	14500	16800	12150
	APR-SEP	11000	13400	14700	110	15900	18500	13370

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(2) - The value is natural flow - actual flow may be affected by upstream water management.

STREAMFLOW FORECASTS

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
NOXON RAPIDS	335.0	308.4	317.0	314.2

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
UPPER CLARK FORK	43	110	94
BITTERROOT	13	109	94
LOWER CLARK FORK	16	113	101
CLARK FORK TOTAL	67	111	96
FLATHEAD	30	125	136
PEND OREILLE	97	116	111

JEFFERSON RIVER BASIN

The below average precipitation trend continued through January with the mountain areas receiving only about 65 percent of average accumulation. This brings the season's cumulative precipitation since October 1 down to about 85 percent of average. Snowpack conditions are well below average over most of the basin. Snowpacks range from about 65 percent of average in the Beaverhead River Basin to about 75 percent of average in the Big Hole River Drainage. Some areas in the Red Rock River Basin report snowpacks as low as about 40 percent of average. Soils under the snowpack remain drier than normal. Reservoir storage levels are also below to well below average. Spring and summer streamflows are forecast to be well below average in the 50 to 70 percent of average range. Surface Water Supply Indexes (SWSI) are: Beaverhead River -3.2; Ruby River -2.5; Jefferson River -2.2; Big Hole River -2.0; Boulder River -1.2.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
RED ROCK RIVER near Monida (2)	APR-JUL	29	40	55	52	72	97	105
	APR-SEP	34	45	60	53	79	107	114
BEAVERHEAD RIVER near Grant (2)	APR-JUL	18.0	40	77	52	114	169	149
	APR-SEP	21	47	90	51	133	197	175
BEAVERHEAD RIVER at Barratts (2)	APR-JUL	40	67	110	57	153	215	192
	APR-SEP	40	81	130	58	179	250	224
RUBY RIVER near Alder	APR-JUL	34	50	62	70	74	91	89
	APR-SEP	41	61	75	71	89	109	106
BIG HOLE RIVER near Melrose	APR-JUL	280	400	480	69	560	680	696
	APR-SEP	310	440	525	69	610	740	757
BOULDER RIVER near Boulder	APR-JUL	27	48	66	73	84	109	91
	APR-SEP	30	53	72	74	91	119	97
WILLOW CREEK near Harrison	APR-JUL	5.3	8.2	12.5	66	16.8	23	18.9
	APR-SEP	5.9	9.1	14.0	67	18.9	26	21
JEFFERSON near Three Forks (2)	APR-JUL	280	415	550	53	740	1020	1042
	APR-SEP	325	460	600	52	810	1120	1156

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
LIMA	84.0	12.0	18.9	35.6
CLARK CANYON	255.6	85.6	82.6	144.5
RUBY RIVER	38.8	20.0	20.8	23.8

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
BEAVERHEAD	20	90	59
RUBY	5	84	75
BIGHOLE	16	92	73
BOULDER	13	88	75
JEFFERSON	46	90	67

MADISON RIVER BASIN

Mountain precipitation during January was about 60 percent of average over the basin. The cumulative precipitation since October 1 is now about 80 percent of average. Snowpack conditions range from about 70 to 75 percent of average which is below average. Soils under the snowpack remain drier than normal. Streamflows for the spring and summer period are expected to be below average in the 70 to 80 percent of average range. The Surface Water Supply Index (SWSI) for the Madison River is -1.6.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
MADISON RIVER near Grayling (2)	APR-JUL	235	275	300	75	325	365	399
	APR-SEP	315	360	390	78	420	465	499
MADISON RIVER near McAllister (2)	APR-JUL	385	455	500	74	545	615	680
	APR-SEP	500	575	630	74	685	760	856

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
ENNIS LAKE	41.0	30.7	29.1	34.7
HEBGEN LAKE	377.5	257.5	254.1	242.0

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
MADISON above HEBGEN	11	85	70
LOWER MADISON	9	85	82
MADISON	20	85	75

GALLATIN RIVER BASIN

January mountain precipitation was about 70 percent of average over the basin. Since October 1, the cumulative precipitation is about 85 percent of average. Basin-wide snowpack conditions are about 80 percent of average with the East Gallatin Drainage having the lowest snowpack. Soil moisture conditions are below to well below average. Spring and summer streamflows are forecast to be between 70 and 80 percent of average. The Surface Water Supply Index (SWSI) for the Gallatin River is -0.8.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
GALLATIN RIVER near Gateway	APR-JUL	280	330	360	78	390	440	460
	APR-SEP	340	390	425	79	460	510	540
E & W FK HYALITE CK nr Bozeman	APR-JUL	14.7	17.9	20	83	22	25	24
	APR-SEP	18.0	21	23	82	25	28	28
HYALITE CREEK near Bozeman (2)	APR-JUL	22	27	31	82	35	40	38
	APR-SEP	27	32	36	82	40	45	44
GALLATIN RIVER at Logan	APR-JUL	245	340	400	76	460	555	528
	APR-SEP	315	405	470	76	535	625	616

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
MIDDLE CREEK	8.0	4.9	4.7	3.4

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
UPPER GALLATIN	7	83	82
EAST GALLATIN	7	88	76
GALLATIN	13	85	78

MAINSTEM MISSOURI RIVER BASIN

Precipitation amounts for the mountain areas during January were about 90 percent of average. Since October 1, cumulative precipitation is about 105 percent of average. Mountain snowpack conditions are below to well below average on the Missouri Headwater Basins, near average on the Smith River Basin and smaller tributaries in the central part of the basin and well above average in the headwaters of the major tributaries to the north. Low elevation snowpacks are generally well below average throughout the basin. Soils under the snowpack are generally drier than normal. Spring and summer streamflows are forecast to range from about 70 percent of average for the Missouri at Toston to about 85 percent of average at Landusky. Inflow to Lake Sakakawea is expected to be about 85 percent of average while flows on the Sun, Teton and Marias Rivers are forecast to be about 130 percent of average. The Surface Water Supply Index (SWSI) for the Missouri River above Canyon Ferry Reservoir is -1.7.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
MISSOURI RIVER at Toston (2)	APR-JUL	880	1250	1530	68	1810	2210	2250
	APR-SEP	1090	1460	1760	68	2060	2500	2590
PRICKLY PEAR CREEK nr Clancy	APR-JUL	8.0	18.0	25	96	32	42	26
	APR-SEP	10.0	21	29	94	37	48	31
SUN RIVER at Gibson Dam (2)	APR-JUL	485	570	630	128	690	775	494
	APR-SEP	545	635	695	128	755	845	542
MISSOURI RIVER at Fort Benton (2)	APR-JUL	1670	2120	2670	77	3220	3820	3470
	APR-SEP	1920	2450	3060	77	3670	4390	3990
MARIAS RIVER near Shelby (2)	APR-JUL	455	515	620	130	830	965	478
	APR-SEP	475	540	650	130	870	1010	501
MISSOURI RIVER at Virgelle (2)	APR-JUL	2140	2670	3360	85	4050	4950	3960
	APR-SEP	2430	3080	3810	85	4540	5630	4500
MISSOURI RIVER near Landusky (2)	APR-JUL	2330	2900	3700	86	4500	5560	4310
	APR-SEP	2650	3380	4220	86	5060	6320	4900
MISSOURI RIVER blw Fort Peck (2)	APR-JUL	2170	2770	3660	86	4560	5580	4260
	APR-SEP	2450	3170	4120	86	5070	6290	4800
LAKE SAKAKAWEA Inflow (2)	APR-JUL	5940	7700	9350	85	11000	13200	11000
	APR-SEP	6590	8370	10300	84	12200	14600	12200

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

RIVERFLOW FORECASTS

RIVER AND FORECAST POINT	PERIOD	MOST PROBABLE	CHANCE OF EXCEEDING				RUNOFF (1)
			90%	70%	50%	30%	10%	
MISSOURI RIVER at Toston (2)	APR-JUL	880	1230	1530	1810	2210	2250
	APR-SEP	1090	1460	1750	2060	2500	2590
TARGHEE PEAK CREEK nr Clarkston	APR-JUL	8.0	14.0	21	32	42	48
	APR-SEP	10.0	21	29	37	48	51
BOW RIVER at Gibbon Dam (2)	APR-JUL	485	570	630	690	775	805
	APR-SEP	565	635	695	755	845	875
MISSOURI RIVER at Fort Benton (2)	APR-JUL	1870	2120	2270	2420	2620	2670
	APR-SEP	1830	2060	2260	2470	2750	2860
MARIAS RIVER near Shelby (2)	APR-JUL	455	515	620	730	870	910
	APR-SEP	475	540	650	770	920	960
MISSOURI RIVER at Virgelle (2)	APR-JUL	2740	3270	3660	4050	4630	4800
	APR-SEP	2930	3500	3910	4340	4950	5150
MISSOURI RIVER near Landusky (2)	APR-JUL	2730	3300	3700	4100	4680	4860
	APR-SEP	2920	3520	4020	4500	5140	5310
MISSOURI RIVER blw Fort Peck (2)	APR-JUL	2170	2720	3460	4200	4860	5060
	APR-SEP	2450	3170	4120	5070	5780	6000
LAKE SAKAKAWEA Inflow (2)	APR-JUL	3940	7200	9350	11500	13200	13600
	APR-SEP	4390	8270	10700	13200	15200	15700

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the natural flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
CANYON FERRY LAKE	2043.0	1466.0	1481.0	1621.0
HELENA VALLEY	9.2	4.4	3.7	5.2
LAKE HELENA	10.4	10.9	10.9	10.2
HAUSER & HELENA	61.9	63.1	63.1	60.9
HOLTER LAKE	81.9	81.2	74.9	71.6
FORT PECK LAKE (MAF)	18.9	10.4	11.2	15.1

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
MISSOURI HEADWATERS	70	88	70
WEST SIDE MISSOURI	9	91	88
SMITH-BELT	5	92	96
MAINSTEM MISSOURI	14	91	92
SUN-TETON-MARIAS	8	121	150
JUDITH-MUSSELSHELL	8	77	85
MISSOURI above FORT PECK	90	93	82
MILK RIVER	10	114	129
MISSOURI in MONTANA	98	94	83
MISSOURI blw YELLOWSTONE	186	89	84

SMITH-JUDITH-MUSSELSHELL RIVER BASINS

Mountain precipitation was about 105 percent of average for January. Since October 1, the cumulative precipitation is now about 95 percent of average. Mountain snowpacks are a little below average for the first of February in the 90 to 95 percent of average range. Snowpacks at the lower elevations are generally below to well below average. Soils under the snowpack are generally drier than normal. Streamflows for the spring and summer period are expected to be about 75 to 85 percent of average. The Surface Water Supply Index (SWSI) is -0.5 for the Smith River and -0.9 for the Musselshell River.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
		<---DRIER---		FUTURE		--WETTER--->		
		-----		CHANCE OF EXCEEDING *		-----		
SMITH RIVER nr Ft. Logan	APR-JUL	15.0	36	50	74	65	86	68
	APR-SEP	22	45	60	75	75	98	80
SHEEP CK nr White Sulphur Springs	APR-JUL	11.0	13.7	15.5	82	17.3	20	18.8
	APR-SEP	13.2	16.0	18.0	82	20	23	22
NF MUSSELSHELL near Delpine	APR-JUL	1.9	3.1	4.0	78	4.9	6.1	5.1
	APR-SEP	2.0	3.5	4.5	76	5.5	7.0	5.9
SF MUSSELSHELL abv Martinsdale	APR-JUL	10.0	28	42	74	56	77	57
	APR-SEP	10.0	29	44	72	59	80	61

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
SMITH RIVER	10.6	5.0	6.1	6.7
NEWLAN CREEK		NO REPORT		
BAIR	7.0	2.7	3.8	4.0
MARTINSDALE	23.1	3.9	10.4	9.9
DEADMAN'S BASIN	72.2	33.5	29.5	45.2

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
SMITH-BELT	5	92	96
JUDITH-MUSSELSHELL	8	77	85

SUN-TETON-MARIAS RIVER BASINS

Mountain precipitation for January was about 105 percent of average. For the water year which began October 1, cumulative precipitation amounts remain well above average at about 165 percent of average. Snowpacks at the higher elevations along the Divide are about 150 percent of average. The lower elevation areas, moving from the foothills onto the plains, show near to below average snowpack. Soil moisture levels are above average at the higher elevations in the western part of the basin but decrease to below average in the valley areas to the east. Streamflows for the spring and summer period are forecast to be above to well above average at about 130 percent of average. The Surface Water Supply Index (SWSI) is +3.6 for the Sun River and +3.5 for the Marias River.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
SUN RIVER at Gibson Dam (2)	APR-JUL	485	570	630	128	690	775	494
	APR-SEP	545	635	695	128	755	845	542
TWO MEDICINE CREEK nr Browning (2)	APR-JUL	200	255	290	131	325	380	222
	APR-SEP	220	275	310	132	345	400	235
BADGER CREEK near Browning (2)	APR-JUL	97	122	140	131	158	184	107
	APR-SEP	119	146	165	134	184	210	123
SWIFT RESERVOIR Inflow nr Dupuyer	APR-JUL	60	77	89	127	101	118	70
	APR-SEP	75	93	105	128	117	135	82
DUPUYER CREEK near Valier	APR-JUL	4.0	15.0	22	130	29	40	17.0
	APR-SEP	6.0	17.0	25	134	33	44	19.0
CUT BANK CREEK at Cut Bank	APR-JUL	90	108	120	130	132	150	92
	APR-SEP	99	118	130	130	143	161	100
MARIAS RIVER near Shelby (2)	APR-JUL	455	515	620	130	830	965	478
	APR-SEP	475	540	650	130	870	1010	501

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

STREAMFLOW FORECASTS

FORECAST POINT	PERIOD	FCST (KAF)	50% (KAF)	70% (KAF)	90% (KAF)	10% (KAF)	30% (KAF)	50% (KAF)	70% (KAF)	90% (KAF)	10YR AVG (KAF)
BIG RIVER at Gibson Dam (2)	APR-JUL	485	540	630	728	590	775	1040	1300	1595	1094
	APR-SEP	547	603	695	828	755	1013	1360	1700	2085	1430
TWO MEDICINE CREEK at Browning (2)	APR-JUL	200	255	290	331	324	380	460	530	610	472
	APR-SEP	220	275	320	372	365	440	535	615	710	545
BADGER CREEK near Browning (2)	APR-JUL	97	122	140	161	158	184	207	227	250	207
	APR-SEP	119	144	165	194	184	210	243	270	300	243
BURLY MISSOURI inflow to Duncan	APR-JUL	60	72	86	127	101	118	140	160	180	70
	APR-SEP	75	93	105	128	117	135	160	180	200	82
DUNCAN CREEK near Valier	APR-JUL	6.0	15.0	22	130	29	40	47	53	60	17.0
	APR-SEP	6.0	17.0	25	134	33	44	52	59	66	19.0
CUT BANK CREEK at Cut Bank	APR-JUL	90	108	120	150	132	150	172	190	210	92
	APR-SEP	99	118	130	170	143	161	185	205	225	100
MARIAS RIVER near Shelby (2)	APR-JUL	455	525	620	730	650	830	965	1080	1210	878
	APR-SEP	475	540	650	750	670	870	1010	1130	1260	901

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(2) - This value is natural flow - actual flow may be altered by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
GIBSON	99.1	48.0	59.2	43.0
PISHKUN		NO REPORT		
WILLOW CREEK	32.2	28.1	30.3	20.4
LOWER TWO MEDICINE LAKE		NO REPORT		
FOUR HORNS LAKE		NO REPORT		
SWIFT	30.0	19.0	20.4	13.6
LAKE FRANCES	112.0	68.3	92.5	68.5
LAKE ELWELL (TIBER)	1347.0	715.5	780.1	558.0

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
SUN-TETON	3	118	143
MARIAS	5	123	153
SUN-TETON-MARIAS	8	121	150

ST. MARY and MILK RIVER BASINS

January mountain precipitation was about 110 percent of average. The cumulative precipitation since October 1 is about 155 percent of average. Snowpack conditions in the headwaters of the Milk and St. Mary River Basins remain well above average in the 140 to 155 percent of average range. Snowpack in the Bear Paw Mountains improved somewhat during the month but remain below average at about 85 percent of average. Soils under the snowpack are wetter than normal in the western part of the basin but drier than normal in the lower reaches of the Milk River Drainage. Reservoir storage is near average in Fresno and Nelson Reservoirs and well above average in Lake Sherburne and Beaver Creek Reservoirs. Streamflows for the spring and summer period are expected to be above average in the 110 to 120 percent of average range. The Surface Water Supply Index (SWSI) is +3.1 for the Milk River (USBR Project water users).

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
SWIFTCURRENT CK at Sherburne (2)	APR-JUL	104	113	120	109	127	136	110
	APR-SEP	123	133	140	109	147	157	128
ST. MARY RIVER near Babb (2)	APR-JUL	375	420	450	111	480	525	404
	APR-SEP	445	495	530	112	565	615	474
MILK RIVER at Eastern Crossing	MAR-SEP	80	92	110	113	152	174	97
MILK RIVER at Eastern Crossing (2)	MAR-SEP			260	96			270

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
LAKE SHERBURNE	64.3	41.8	33.9	21.8
FRESNO	127.0	50.7	84.2	51.2
BEAVER CREEK	3.5	2.7	2.7	1.8
NELSON	66.8	37.7	37.4	37.3

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
MILK HEADWATERS	3	137	154
BEAR PAW	7	73	83
MILK RIVER	10	114	129
ST. MARY	4	129	149
ST. MARY and MILK	11	115	133
BOW RIVER in ALBERTA	11	134	170
OLDMAN RIVER in ALBERTA	1	44	58

UPPER YELLOWSTONE RIVER BASIN

January mountain precipitation was about 70 percent of average. Since October 1, cumulative precipitation is about 95 percent of average. Snowpack conditions range from about 85 to 95 percent of average except in the Shields River Drainage where snowpacks are about 80 percent of average. Soil moisture conditions are below normal in the Shields River Basin, a little below average in the Upper Yellowstone River Basin and near to above average in the Boulder and Stillwater River Basins. Spring and summer streamflows are forecast to be about 80 to 90 percent of average except on the Shields River which to expected to be about 75 percent of average. The Surface Water Supply Indexes are: Yellowstone River above Livingston -1.8; Shields River -1.2; Boulder River -1.4; Stillwater River -0.9; Clarks Fork River -1.3; Rock-Red Lodge Creek -1.1; Yellowstone River above Bighorn River -1.5.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
YELLOWSTONE at Lake Outlet	APR-JUL	330	415	470	80	525	610	590
	APR-SEP	470	580	655	80	730	840	818
YELLOWSTONE at Corwin Springs	APR-JUL	1090	1250	1360	82	1470	1630	1650
	APR-SEP	1330	1520	1650	83	1780	1970	2000
YELLOWSTONE RIVER near Livingston	APR-JUL	1270	1450	1570	82	1690	1870	1920
	APR-SEP	1550	1760	1900	82	2040	2250	2330
SHIELDS RIVER near Livingston	APR-JUL	45	88	125	74	162	215	168
	APR-SEP	56	103	140	75	177	235	187
BOULDER RIVER at Big Timber	APR-JUL	200	260	300	85	340	400	353
	APR-SEP	220	285	325	85	365	430	384
W. ROSEBUD CREEK near Roscoe (2)	APR-JUL	42	50	55	86	60	68	64
	APR-SEP	56	65	70	84	76	84	83
STILLWATER RIVER nr Absarokee (2)	APR-JUL	305	390	450	86	510	595	524
	APR-SEP	395	480	540	86	600	685	625
CLARKS FORK RIVER near Belfry	APR-JUL	335	405	450	83	495	565	540
	APR-SEP	380	450	500	83	550	620	603
RED LODGE CK blw Cooney Res (2)	APR-JUL	16.0	34	45	92	57	74	49
	APR-SEP	27	44	55	92	66	83	60
YELLOWSTONE RIVER at Billings	APR-JUL	2510	2800	3150	84	3500	3810	3740
	APR-SEP	2950	3330	3700	84	4070	4500	4410

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
MYSTIC LAKE	21.0	3.6	4.7	9.4
COONEY	27.4	17.9	21.2	13.8

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
YELLOWSTONE ab LIVINGSTON	17	83	78
SHIELDS	6	85	73
BOULDER-STILLWATER	6	79	85
CLARK'S FORK-ROCK CREEK	10	90	85
YELLOWSTONE above BIGHORN	34	85	80

LOWER YELLOWSTONE RIVER BASIN

Precipitation during January was about 90 percent of average in the mountain areas. Since October 1, cumulative mountain precipitation is about 105 percent of average. Snowpack conditions in the Bighorn Mountains of Wyoming is a little below average. Snowpacks range from 85 percent of average in the headwaters of the Little Bighorn River to about 95 percent of average in the Tongue River Drainage. Storage in Bighorn Lake is about 115 percent of average. Spring and summer streamflows are forecast to range from 80 to 90 percent of average except on the Powder River where flows are expected to be 75 to 80 percent of average. The Surface Water Supply Index (SWSI) for both the Little Bighorn and Tongue Rivers is -0.9.

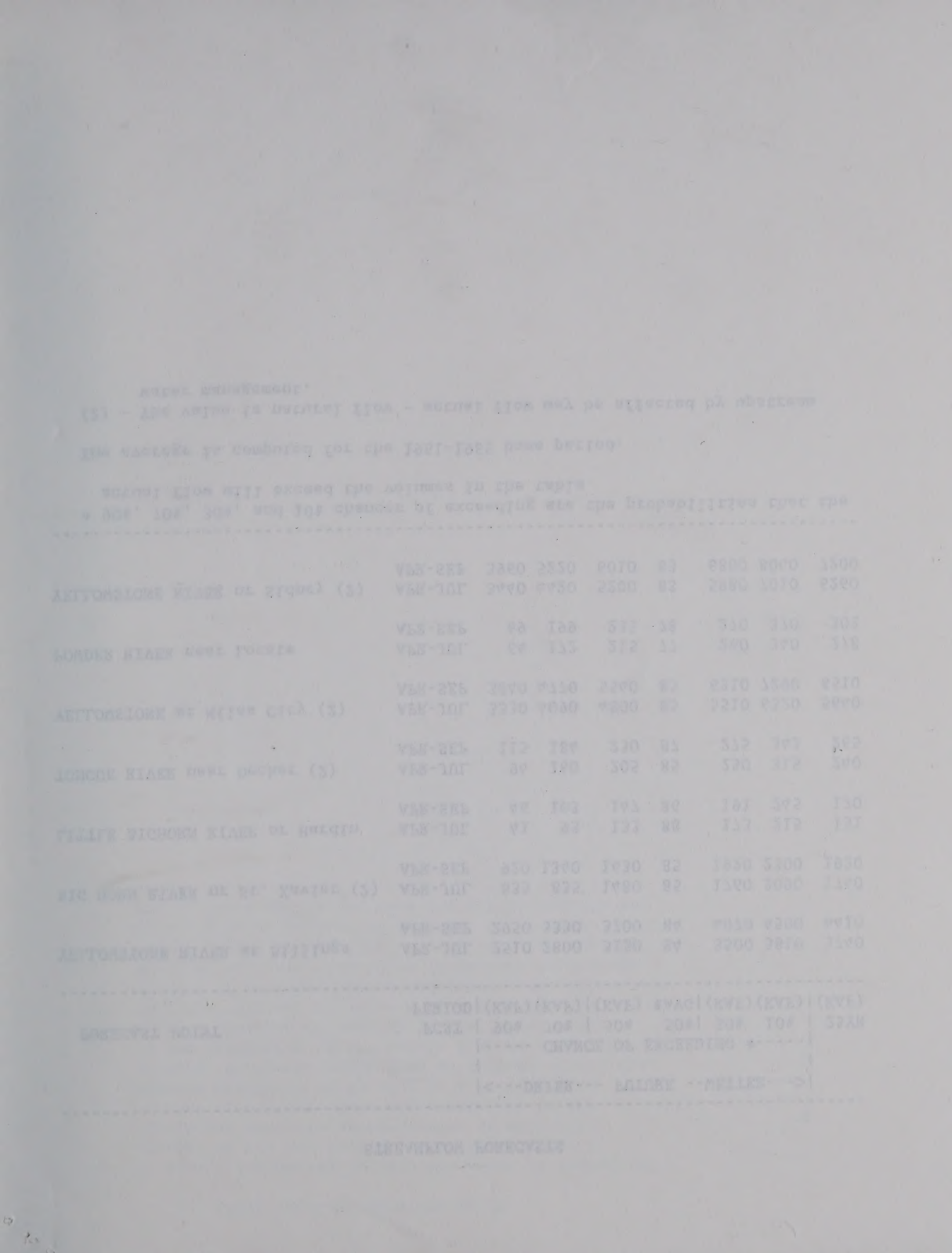
STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
YELLOWSTONE RIVER at Billings	APR-JUL	2510	2800	3150	84	3500	3810	3740
	APR-SEP	2950	3330	3700	84	4070	4500	4410
BIG HORN RIVER nr St. Xavier (2)	APR-JUL	835	835	1480	85	1760	2090	1740
	APR-SEP	920	1340	1630	85	1920	2300	1920
LITTLE BIGHORN RIVER nr Hardin	APR-JUL	41	93	133	88	173	215	151
	APR-SEP	46	103	147	86	191	245	170
TONGUE RIVER near Decker (2)	APR-JUL	94	160	205	85	250	315	240
	APR-SEP	115	184	230	87	275	345	265
YELLOWSTONE at Miles City (2)	APR-JUL	3330	4090	4800	85	5510	6320	5640
	APR-SEP	3840	4770	5540	85	6310	7290	6510
POWDER RIVER near Locate	APR-JUL	64	172	215	77	260	340	278
	APR-SEP	69	199	235	78	270	370	302
YELLOWSTONE RIVER nr Sidney (2)	APR-JUL	3440	4420	5200	83	5980	7010	6260
	APR-SEP	3960	5220	6010	83	6800	8060	7200

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(2) - The value is natural flow - actual flow may be affected by upstream water management.



RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
BIGHORN LAKE	1356.0	775.4	793.2	683.0
TONGUE RIVER		NO REPORT		

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
BIG HORN (Wyoming)	55	85	86
LITTLE BIGHORN	5	59	85
TONGUE RIVER (Wyoming)	14	76	95
POWDER RIVER (Wyoming)	13	76	89
YELLOWSTONE RIVER	99	83	84